Electronic TUBES

6BL7-GTA

TWIN TRIODE

FOR TV VERTICAL-DEFLECTION OSCILLATOR AND AMPLIFIER APPLICATIONS

DESCRIPTION AND RATING

The 6BL7-GTA is a twin triode especially designed for use as a combined vertical deflection amplifier and vertical oscillator in television receivers. The 6BL7-GTA is interchangeable with the 6BL7-GT but differs from it in having an improved section 1 for increased life as an oscillator, and controlled zero-bias plate current in both sections.

GENERAL

ELECTRICAL

Cathode—Coated Unipotential

Heater Voltage, AC or DC	6.3	Volts
Heater Current	1.5	Amperes

Direct Interelectrode Capacitances, approximate*

	Section 1	Section 2	
Grid to Plate	6.0	6.0	μμf
Input	4.2	4.6	μμf
Output	0.9	0.9	μμf

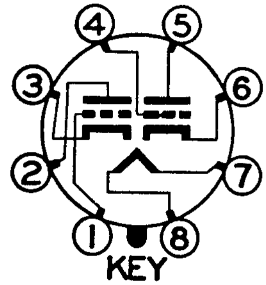
MECHANICAL

Mounting Position—Any
Envelope—T-9, Glass
Base—B8-58, Short Intermediate-Shell Octal 8-Pin

MAXIMUM RATINGS

DESIGN-CENTER VALUES UNLESS OTHERWISE INDICATED, EACH SECTION	Vertical Oscillator Service†‡	Vertical-Deflection Amplifier‡	
DC Plate Voltage	500	500	Volts
Peak Positive Pulse Plate Voltage	...	2000§	Volts
Peak Negative Grid Voltage	400	250	Volts
Plate Dissipation, Each Plate	10	10△	Watts
Total Plate Dissipation, Both Plates	12	12	Watts
DC Cathode Current	60	60	Milliamperes
Peak Cathode Current	210	210	Milliamperes
Heater-Cathode Voltage			
Heater Positive with Respect to Cathode			
DC Component	100	100	Volts
Total DC and Peak	200	200	Volts
Heater Negative with Respect to Cathode			
Total DC and Peak	200	200	Volts

BASING DIAGRAM

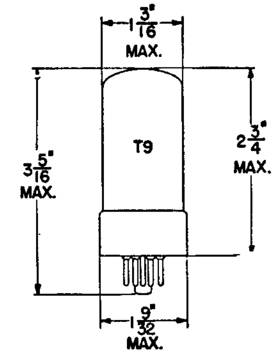


EIA 8BD

TERMINAL CONNECTIONS

Pin 1—Grid (Section 2)
Pin 2—Plate (Section 2)
Pin 3—Cathode (Section 2)
Pin 4—Grid (Section 1)
Pin 5—Plate (Section 1)
Pin 6—Cathode (Section 1)
Pin 7—Heater
Pin 8—Heater

PHYSICAL DIMENSIONS



EIA 9-41

CHARACTERISTICS AND TYPICAL OPERATION

AVERAGE CHARACTERISTICS, EACH SECTION

Plate Voltage	150	250	250	Volts
Grid Voltage	0	−17	−9.0	Volts
Amplification Factor	...	...	15	
Plate Resistance, approximate	...	...	2150	Ohms
Transconductance	...	...	7000	Micromhos
Plate Current	65	4.0	40	Milliamperes
Grid Voltage, approximate Ib = 50 Microamperes	...	...	−23	Volts

* Without external shield.

† Section 1 is recommended for vertical oscillator service.

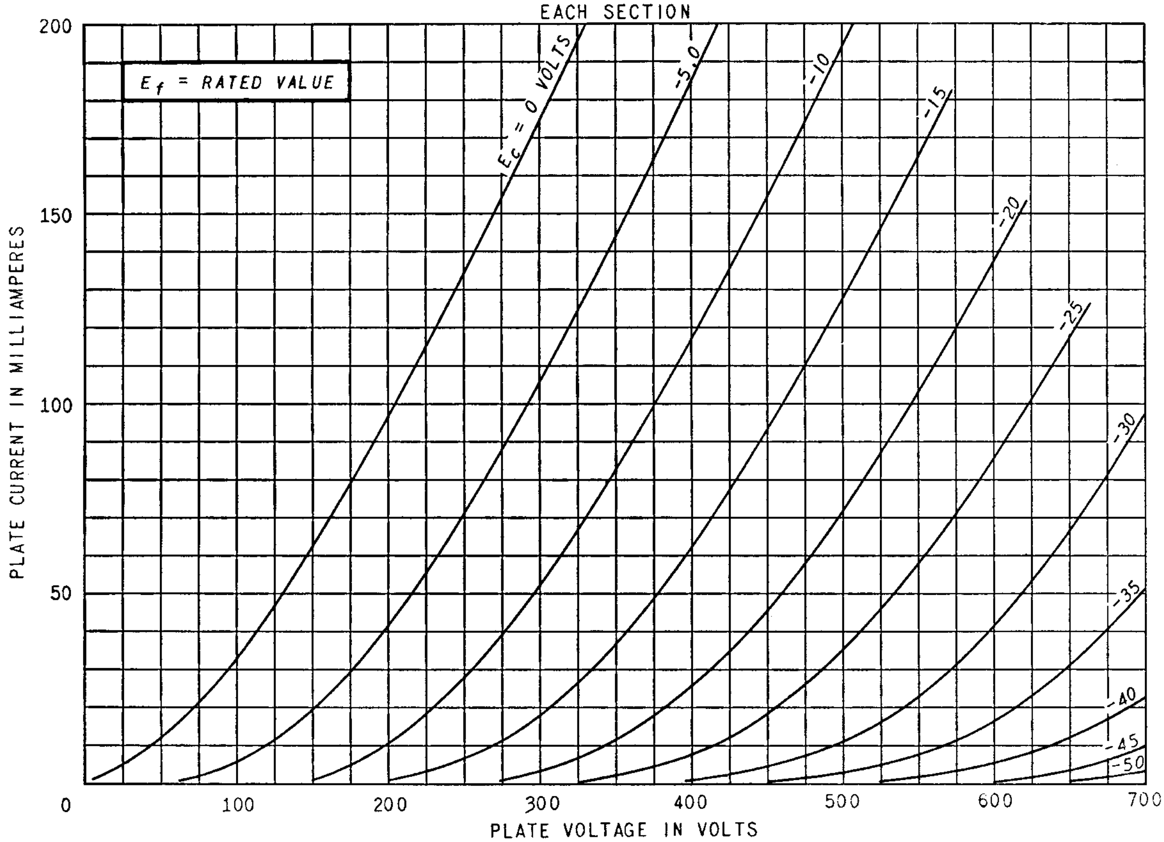
‡ For operation in a 525-line, 30-frame television system as described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commission. The duty cycle of the voltage pulse must not exceed 15 percent of one scanning cycle.

§ Absolute-Maximum value.

△ In stages operating with grid-leak bias, an adequate cathode bias resistor or other suitable means is required to protect the tube in the absence of excitation.

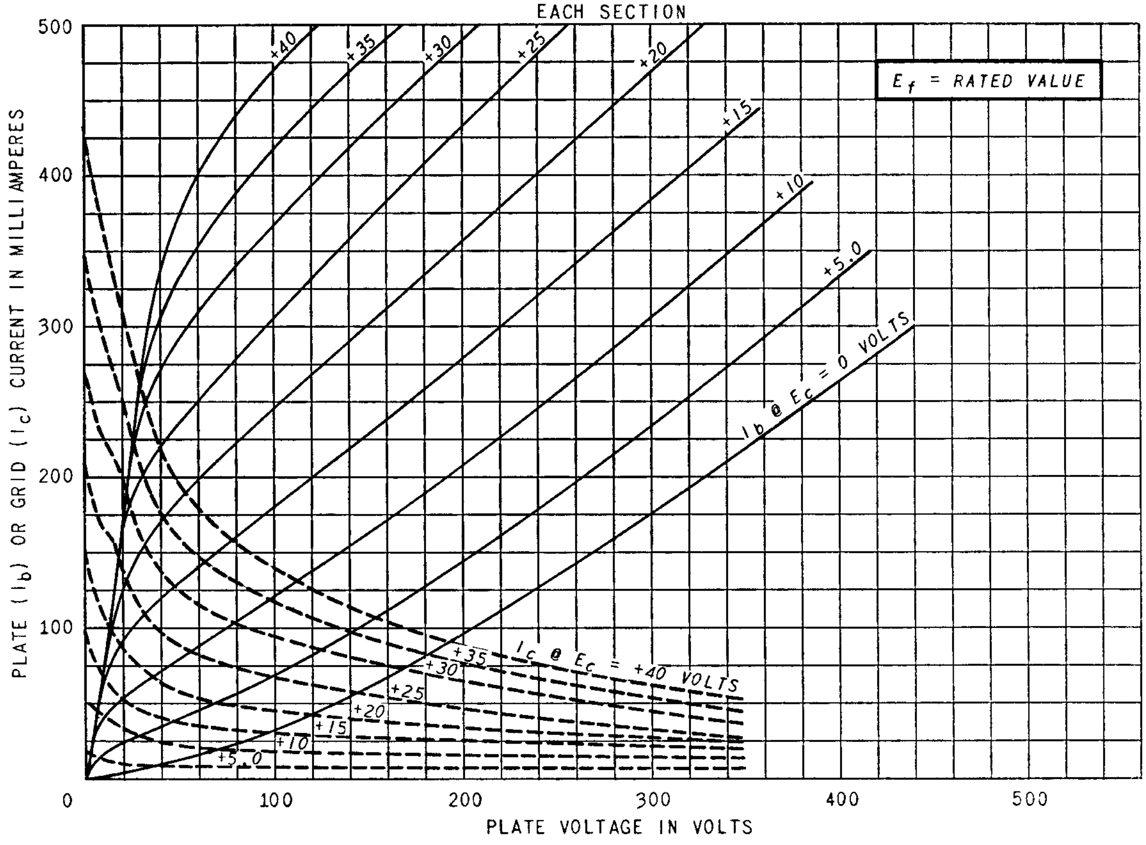
AVERAGE PLATE CHARACTERISTICS

EACH SECTION



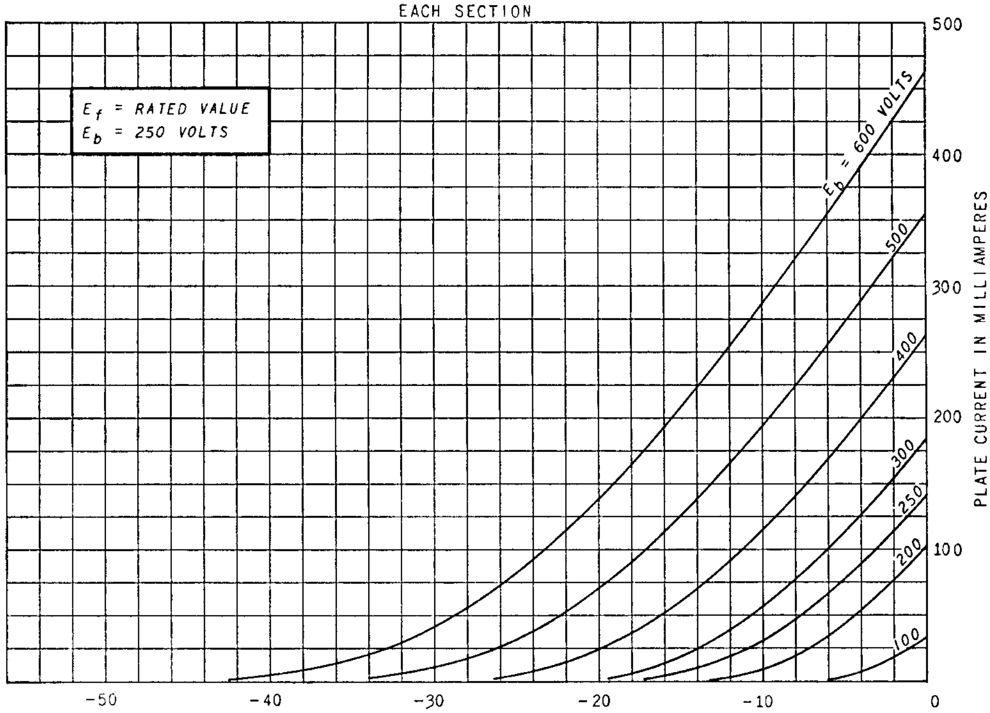
AVERAGE PLATE CHARACTERISTICS

EACH SECTION



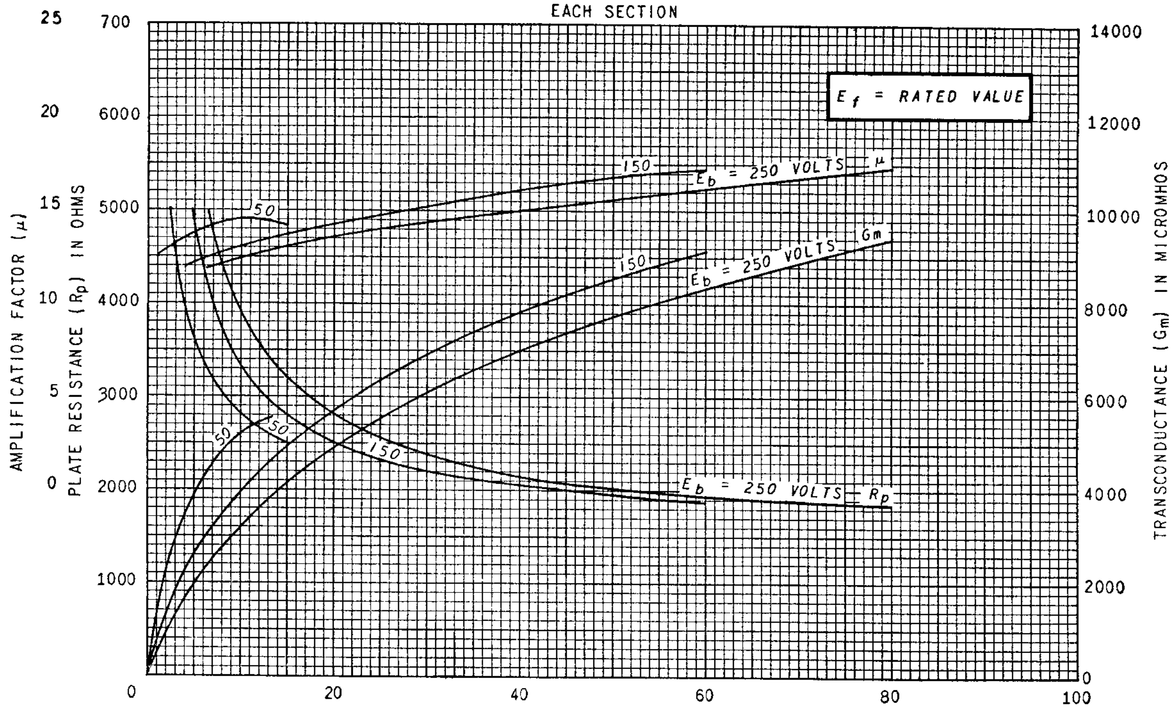
AVERAGE TRANSFER CHARACTERISTICS

EACH SECTION



AVERAGE CHARACTERISTICS

EACH SECTION



ELECTRONIC COMPONENTS DIVISION

GENERAL ELECTRIC

Schenectady 5, N. Y.